

INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB2005/000114

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 B01J19/00 B01D3/08 B01F13/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 B01D B01F B01J B01L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A,P	US 2004/252584 A1 (JI HONGMIAO ET AL) 16 December 2004 (2004-12-16) paragraphs '0033!', '0046!; claims; figures 1,3,4	1-19
A	WO 99/44736 A (INSTITUT FUER MIKROTECHNIK MAINZ GMBH; EHRFELD, WOLFGANG; LOEWE, HOLGE) 10 September 1999 (1999-09-10) claims; figures 1a,1b,2	1-19
A	US 4 292 409 A (CREMONESI ET AL) 29 September 1981 (1981-09-29) claims; figures 1,2	1-19
A	US 4 863 567 A (RALEY ET AL) 5 September 1989 (1989-09-05) column 5, line 37 - column 6, line 14; figures 1-3	1-19
	----- -/--	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

10 May 2005

Date of mailing of the international search report

19/05/2005

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,
Fax: (+31-70) 340-3016

Authorized officer

Fourgeaud, D

INTERNATIONAL SEARCH REPORT

International Application No
PCT/GB2005/000114

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>US 4 731 159 A (PORTER ET AL) 15 March 1988 (1988-03-15) column 2, line 39 - line 54; figure 1 -----</p>	1-19

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/GB2005/000114

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2004252584	A1	16-12-2004	WO 2004108261 A1	16-12-2004
WO 9944736	A	10-09-1999	DE 19909180 A1	09-09-1999
			DE 59901922 D1	08-08-2002
			WO 9944736 A1	10-09-1999
			EP 1060014 A1	20-12-2000
US 4292409	A	29-09-1981	IT 1113361 B	20-01-1986
			AT 372974 B	12-12-1983
			AT 228680 A	15-04-1983
			AU 523433 B2	29-07-1982
			AU 5808080 A	13-11-1980
			BE 883161 A2	01-09-1980
			CA 1141314 A1	15-02-1983
			CH 652743 A5	29-11-1985
			DE 3011334 A1	13-11-1980
			ES 8104398 A1	01-07-1981
			FI 801413 A	09-11-1980
			FR 2456138 A1	05-12-1980
			GB 2048711 A ,B	17-12-1980
			JP 1131204 C	17-01-1983
			JP 56005091 A	20-01-1981
			JP 57022551 B	13-05-1982
			LU 82422 A1	31-07-1980
			NL 8002658 A	11-11-1980
			NO 801248 A	10-11-1980
			SE 8003488 A	09-11-1980
US 4863567	A	05-09-1989	NONE	
US 4731159	A	15-03-1988	AT 25340 T	15-02-1987
			AU 567325 B2	19-11-1987
			AU 2483084 A	06-09-1984
			CA 1239340 A1	19-07-1988
			DE 3462305 D1	12-03-1987
			DK 132984 A	02-09-1984
			EP 0118236 A1	12-09-1984
			JP 4013001 B	06-03-1992
			JP 59173102 A	01-10-1984
			NO 840643 A ,B,	03-09-1984